

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-31 (Canceled)

32. (Currently Amended): A method for determining if the amount of toner required to render a print job using a given print engine at ~~the an associated printing location of the given print engine~~ is available at the given print engine at the ~~associated printing location of the given print engine~~ wherein prior information about a toner level of a toner cartridge from which toner is supplied to the rendering operation at the given print engine at the ~~associated location of the given print engine~~ is stored in a toner level register as a toner level value, comprising the steps of:

accumulating as an accumulated image value ~~in an accumulator~~ toner values, expressed as an incremental value ranging from zero to a maximum value, of substantially all the pixels in a rasterized image prior to sending the rasterized image to the ~~printing location of the given print engine~~;

decrementing the current toner level value in the toner level register by the accumulated image value for the given print engine at the ~~associated printing location of the given print engine~~ and maintaining this value, if a comparison of the accumulated image value with the current toner level value for the given print engine at the ~~associated printing location of the given print engine~~ prior to this step of decrementing indicates that the ~~current toner level value prior to this step of decrementing~~ minus the accumulated image value ~~in the first register~~ is greater than a minimum toner level value associated with the given print engine at the ~~associated printer location of the given print engine~~; and

sending the rasterized image to the given print engine at the ~~associated printing location of the given print engine~~ for rendering only if the decremented toner level value associated therewith has been determined to greater than the minimum toner level.

33. (Currently Amended) The method of Claim 32, further comprising the step of:

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sending the print job to an alternative print engine at an alternative associated printing location for rendering if the accumulated image value is greater than the current toner level value associated with the given print engine at the ~~associated printing location of the given print engine~~ minus the minimum toner level.

34. (Currently Amended) The method of Claim 32, wherein the step of accumulating comprises the steps of:

expressing the toner value of each pixel in the rasterized image as one of a plurality of incremental units having values from zero to maximum toner usage for a pixel; and

5 accumulating the toner values for all of the non-zero-valued pixels in the rasterized image in the ~~accumulator~~.

35. (Currently Amended): The method of Claim 34, wherein the step of decrementing comprises the steps of:

comparing the accumulated value in the ~~accumulator~~ with the current toner level value in the toner level register for the given print engine at the ~~associated printing location of the given print engine~~; and

5 subtracting the accumulated value in the ~~accumulator~~ from the current toner level value in the toner level register for the given print engine at the ~~associated print location of the given print engine~~ if it is greater than the current toner level value in the toner level register for the given print engine at the ~~associated printing location of the given print engine~~ minus the
10 minimum toner level.

36. (Currently Amended) The method of Claim 32, wherein the step of accumulating comprises the steps of:

determining an average pixel value for the pixels of the rasterized image;

5 defining the toner required for rendering the rasterized image as a percentage of a maximum toner usage page wherein each pixel in a rasterized image for a maximum toner usage page has a maximum value; and

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~~determining as the accumulated image value entering the defined toner required into the accumulator as the percentage of the maximum toner usage page.~~

37. (Currently Amended) The method of Claim 36, wherein the step of decrementing comprises the steps of:

5 comparing the value ~~in the accumulator~~ of the accumulated image value with the current toner level value in the toner level register for the given print engine at the associated printing location of the given print engine which toner level value represents printing pages at maximum toner usage; and

10 subtracting the value of the accumulated image value from the value in the toner level register in the accumulator if it is greater than the current toner level value in the toner level register for the given print engine at the associated printing location of the given print engine minus the minimum toner level.

Claim 38 (Currently Amended): The method of Claim 32 wherein the print job is comprised of a plurality of pages, each page providing a separate rasterized page image and wherein the step of accumulating comprises the step of accumulating as the accumulated image value ~~in the accumulator~~ toner values for all of the rasterized page images as a single print job.

Claim 39 (Currently Amended): The method of claim 38, wherein the step of sending the rasterized image to the print engine at the associated printing location for rendering comprises sending the entire print job comprised of the rasterized page images to the given print engine at the associated printing location for rendering.

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